

# Expansion joint rebuild done right with Belzona

ID: 7763

**Industry:** Commercial Facilities  
**Application:** FPA-Floor Problem Areas  
**Substrate:** Concrete  
**Products:** \* Belzona 4911 (Magma TX Conditioner) ,  
\* Belzona 4111 (Magma-Quartz) ,  
\* Belzona 2911 (Elastomer QD Conditioner) ,  
\* Belzona 2221 (MP Fluid Elastomer) ,

**Customer Location:** North Idaho  
**Application Date:** 9/2018

## Problem

This was a construction joint from when the hospital was expanded. No expansion joint was installed, it was just concrete against concrete. Over the years the expansion and contraction caused the concrete at the seam to break and crumble. The metal and rubber expansion joint strip mounted over it also caused a bump in the floor.



## Photograph Descriptions

- \* 1. VCT tiles removed and damaged concrete being removed. Notice the large area broken out on the left side. ,
- \* 2. Applying the Belzona 4111 on either side of the former. ,
- \* 3. Ready to pour the Belzona 2221, waiting for the Belzona 2911 to cure. ,
- \* 4. Tape removed. Completed successful application. ,

## Application Situation

Hospital construction joint.

## Application Method

The original VCT flooring tiles were removed from either side of the seam. The loose and broken concrete was removed. The remaining concrete was ground back to open up space between the two sides. Belzona 4911 and 4111 were applied with the use of a plastic wrapped former to leave a nice squared, even area for the expansion joint to be created. The new full sheet vinyl flooring

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ISO 9001:2015  
FS 695214  
ISO 14001:2015  
EMS 695213

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was then installed over the new joint and allowed to cure. A week later we came back and cut the vinyl flooring to expose the space between the concrete sections. The Belzona 2911 was applied and allowed to cure according to the Instructions For Use. Foam backing rod was inserted to a depth that was equal to half the width of the joint. Both sides were carefully taped off and the Belzona 2221 was then mixed and poured into the joint. Using a Belzona applicator, the excess Belzona 2221 was scraped off leaving it level with both sides of the new vinyl flooring. The tape was then removed and a bridge was placed over the joint to allow for hospital beds, carts, and staff to pass over it during the cure time. After 24 hours, the bridge was removed leaving a nice smooth, clean transition.

## Belzona Facts

The previous expansion joint created a bump in the floor which caused unnecessary jolts to patients being passed over it in hospital beds, and there was also the risk for items to spill or be knocked over or off of carts travelling over it. With the creation of an expansion joint that is neither high or lower than the flooring on either side makes for a Smooth-Ride which will last for many many years without any further maintenance. The hospital is already planning on updating two other expansion joints. The biggest benefit to using Belzona materials is that there are zero VOC's which allowed the application to be carried out with patients in their rooms only feet away as well as staff passing by the entire time with no environmental impact from fumes or odors.

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